

REMARKS

In the January 15, 2002 office action, claims 8-9, 11-13, 15, 17, 22, and 25 were rejected under 35 USC §102(b) as being anticipated by WO 95/30585 to "Wheaton." Claims 8-9, 11-18, 20-23, and 25-26 were rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 3,780,899 to "Roper" in view of U.S. Patent No. 3,985,257 to "Shaffer." Claims 10, 19, and 24 were rejected under 35 USC §103(a) as being unpatentable over Roper and Shaffer and further in view of U.S. Patent No. 4,579,260 to "Young." Claims 8-9, 11-13, 15-18, 20, 22-23, and 25 were rejected under 35 USC §103(a) as being unpatentable over DE 9408722.9 in view of Roper. Claims 10, 19, and 24 were rejected under 35 USC §103(a) as being unpatentable over DE 9408722.9 in view of Roper and further in view of Young. Claims 13, 21, and 26 were rejected under 35 USC §103(a) as being unpatentable over DE 9408722.9 in view of Roper and further in view of U.S. Patent No. 5,449,087 to "Mikula."

Claims 8-26 have been canceled to overcome all rejections. New claims 27-36 are being submitted for the Examiner's consideration in view of the comments below.

Amendments to the Claims

Independent claim 27 is directed to a plastic blow-molded barrel having four substantially identically shaped, convex side surfaces and having an approximately square-shaped cross section. The Office Action asserts on page 2 that "the limitation of blow-molded does not add any structure that is not found in [Wheaton]." Applicants respectfully disagree. A blow-molded container is structurally different from an injection-molded container. For example, the keg shown in Fig. 2 of Wheaton, having a diameter much larger than the diameter of the opening 15, could not be formed by injection molding without weld lines 17, 18. In sharp contrast, the container according to the present invention (as shown, e.g., in Fig. 2 of the present application) may be formed without weld lines by blow molding. Because a container comprising injection-molded parts may require those parts to be welded (thus resulting in at least one weld line, a structural element), a blow-molded container, with "the bottom surface and four side surfaces having a unitary construction" is structurally different. Therefore, even if the Examiner does not grant patentable weight to the "blow molded language", it is submitted that the "unitary construction" language distinguishes barrels formed by welding injection-molded parts.

Rejection over the Prior art

Table 1 lists all of the cited references and shows which references disclose which features. No reference discloses the combination of blow-molded, plastic, and square-shaped with convex sides, as called for in claim 27, nor does any reference disclose an outwardly extending hoop in the indentation, as called for in claim 30. Further, it would not be obvious to combine the references in a manner that discloses the limitations of claim 27 because no reference suggests a motivation to do so.

	Square-shaped with convex sides	Plastic	Blow-molded	Indentation	Outwardly Extending Hoop in Indentation
Wheaton		X	teaches away	X	
Roper	X	teaches away		X	
DE '872		X	X		
Shaffer		X	X		
Young		X	X	X	
Mikula		X	X		

Table 1. Features Found in Cited References.

Wheaton is directed to a plastic keg comprising three injection molded parts welded together. On page 1, lines 3-7 and page 5, lines 25-27, Wheaton specifically teaches away from a blow-molded container. In any event, since Wheaton has welds, its barrel body is not provided with a "bottom surface and four side surfaces having a unitary construction", as recited in new independent claims 27. Further, Wheaton's Fig. 4 shows a square-shaped flange 21 for a square-shaped keg. However, the flange 21 has perfectly straight sides, not convex sides. The Office Action on page 2 asserts that "The container side walls are convex on the interior surface." Applicants respectfully disagree and request the Examiner to point out how the sides are convex. Wheaton simply does not teach, suggest, or disclose a plastic blow-molded barrel having four substantially identically shaped, convex side surfaces and having an approximately square-shaped

cross section. Independent claim 27, and all claims dependent therefrom, are believed to be patentable over Wheaton.

Roper (which was filed more than 30 years ago) discloses a metal container having a rectangular tubular body, and does not teach, suggest, or disclose a plastic blow-molded container. Shaffer (which was filed more than 25 years ago) discloses a cylindrical plastic blow-molded container, but does not teach, suggest, or disclose a barrel having four substantially identically shaped, convex side surfaces and having an approximately square-shaped cross section. According to MPEP 2143.01, in order to combine references, a teaching, suggestion, or motivation to do so must be found in the references. There simply is none.

Roper, for its part, does not suggest any motivation to use blow-molded plastic (or any material besides metal) in its square-shaped container. This is not at all surprising. Roper is directed to eliminating lines of weakness in the forming of metal containers by curling “first and second flange[s]... together completely around [the] container into a solid first lock seam” (col. 9, lines 4-9 and claim 1)¹, as shown, e.g., in Figs. 2, 3, and 8. Applying Roper’s teachings to a plastic container simply would not work, because curling plastic would break the plastic (or, if it didn’t break the plastic, the curled plastic would not hold into “a solid first lock seam”). Therefore, Roper teaches away from using any plastic (including blow-molded plastic) in its disclosed container.

Shaffer simply discloses that a large cylindrical steel drum could instead be made of blow-molded plastic. This, evidently, was the state of the art 25+ years ago. Shaffer, however, does not suggest any shape for a drum except cylindrical. At col. 1, lines 59-61, Shaffer states: “The design of the drum is such that... different capacity drums may readily be blow-molded.” (Emphasis added.) Significantly, Shaffer does not state that differently *shaped* drums may readily be blow-molded. This is because forming a large, blow-molded square- (or non-cylindrical-) shaped container is more complicated than forming a large blow molded cylindrical-shaped container, due to differences in mold design and the manner in which a parison is formed and then expanded. Therefore, one skilled in the art, looking only at Roper and Shaffer would not have been motivated to make a square-shaped container out of blow-molded plastic or, for that matter, have any reason to believe that a square-shaped plastic container with convex side surfaces could be blow-molded. And to the extent that Shaffer is silent about differently shaped

¹ It is noted that “curling” a flange is not at all relevant to the plastic blow molded container of the present invention

drums, it is submitted that Shaffer teaches away from making a square-shaped container out of blow-molded plastic.

Because Roper and Shaffer are not combinable in the manner suggested by the Office Action, they do not teach, suggest, or disclose a plastic blow-molded barrel having four substantially identically shaped, convex side surfaces and having an approximately square-shaped cross section. Therefore, independent claim 27, and all claims dependent therefrom, are believed to be patentable over Roper and Shaffer.

Neither DE 9408722.9, Young, nor Mikula cures the deficiencies of Roper and Shaffer (including a motivation to combine). The Office Action on page 4 asserts, “It would be obvious to employ the shape of Roper ‘899 in the container of DE ‘872 to provide an alternative shape for the container.” However, neither reference discloses or suggests such a motivation. In fact, as previously discussed, Roper teaches away from using plastic in its disclosed container. Because one skilled in the art would not combine the references in the manner suggested by the Examiner, it is submitted that no combination the cited references render obvious independent claim 17. Accordingly, independent claim 27, and all claims depending thereon, are believed to be patentable over these references.

With reference to claim 30, it is noted that none of the cited references discloses a “thickened mold hoop emerging from a radially inner portion of the indentation and extending in a radially outward direction.” And with reference to claims 31 & 32 (which depend on claim 30), it is noted that none of the prior art references discloses that “a radially outermost portion of the mold hoop extends to (claim 31) or beyond (claim 32) an outer circumference of the barrel body.” Therefore, claims 30-32 are believed to define over any combination of the references for reasons completely independent of their dependency on their base claim. Claim 33, which is directed to the approximately height at which the mold hoop is present, likewise defines over the prior art.

With respect to all claims not specifically mentioned, it is submitted that these are patentable not only by virtue of their dependency on their respective base claims and any intervening claims, but also for the totality of features recited therein.

Reconsideration of the application is requested. Claims 27-36 are believed to be in allowable form and define over the prior art of record. An early notice of allowance is requested so that the application may proceed to issue.

No fee is believed to be due for the changes of the present amendment.

Respectfully submitted,

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APPENDIX AMARKED-UP CLAIMS IN AMENDMENT filed July 12, 2002

27. (New) A plastic blow-molded barrel comprising:

a barrel body having a top surface, a bottom surface, and four substantially identically shaped, convex side surfaces, each side surface connected to two adjacent side surfaces at rounded corners, the bottom surface and four side surfaces having a unitary construction; and
a horizontal stiffening element that is formed as an indentation, located between said top surface and bottom surface, and runs along a circumference of the barrel body,

wherein the convex side surfaces and the rounded corners impart an approximately square-shaped cross-section to the barrel body.

28. (New) The plastic blow-molded barrel according to claim 27, wherein the top surface, bottom surface, and four side surfaces have a unitary construction.

29. (New) The plastic blow-molded barrel according to claim 27, wherein the horizontal stiffening element is formed as one of a V-shaped indentation and a U-shaped indentation.

30. (New) The plastic blow-molded barrel according to claim 27, further comprising a thickened mold hoop emerging from a radially inner portion of the indentation and extending in a radially outward direction.

31. (New) The plastic blow-molded barrel according to claim 30, wherein a radially outermost portion of the mold hoop extends to an outer circumference of the barrel body.

32. (New) The plastic blow-molded barrel according to claim 30, wherein a radially outermost portion of the mold hoop extends beyond an outer circumference of the barrel body so that the mold hoop sticks out from the barrel body.

33. (New) The plastic blow-molded barrel according to claim 30, wherein the thickened mold hoop is provided at a level that is about 43% of a height of the barrel.

34. (New) The plastic blow-molded barrel according to claim 27, wherein the top surface is configured as a removable lid.

35. (New) The plastic blow-molded barrel according to claim 27, further comprising first and second side bungs, each side bung formed on the top surface adjacent to oppositely facing first and second of said four side surfaces.

36. (New) The plastic blow-molded barrel according to claim 27, further comprising a foot hoop extending around a circumference of the barrel body, the foot hoop configured to allow rolling of the barrel on a floor.

APPENDIX B

CLEAN COPY OF PENDING CLAIMS AFTER AMENDMENT FILED July 12, 2002

27. (New) A plastic blow-molded barrel comprising:

a barrel body having a top surface, a bottom surface, and four substantially identically shaped, convex side surfaces, each side surface connected to two adjacent side surfaces at rounded corners, the bottom surface and four side surfaces having a unitary construction; and

a horizontal stiffening element that is formed as an indentation, located between said top surface and bottom surface, and runs along a circumference of the barrel body,

wherein the convex side surfaces and the rounded corners impart an approximately square-shaped cross-section to the barrel body.

28. (New) The plastic blow-molded barrel according to claim 27, wherein the top surface, bottom surface, and four side surfaces have a unitary construction.

29. (New) The plastic blow-molded barrel according to claim 27, wherein the horizontal stiffening element is formed as one of a V-shaped indentation and a U-shaped indentation.

30. (New) The plastic blow-molded barrel according to claim 27, further comprising a thickened mold hoop emerging from a radially inner portion of the indentation and extending in a radially outward direction.

31. (New) The plastic blow-molded barrel according to claim 30, wherein a radially outermost portion of the mold hoop extends to an outer circumference of the barrel body.

32. (New) The plastic blow-molded barrel according to claim 30, wherein a radially outermost portion of the mold hoop extends beyond an outer circumference of the barrel body so that the mold hoop sticks out from the barrel body.

33. (New) The plastic blow-molded barrel according to claim 30, wherein the thickened mold hoop is provided at a level that is about 43% of a height of the barrel.

34. (New) The plastic blow-molded barrel according to claim 27, wherein the top surface is configured as a removable lid.

35. (New) The plastic blow-molded barrel according to claim 27, further comprising first and second side bungs, each side bung formed on the top surface adjacent to oppositely facing first and second of said four side surfaces.

36. (New) The plastic blow-molded barrel according to claim 27, further comprising a foot hoop extending around a circumference of the barrel body, the foot hoop configured to allow rolling of the barrel on a floor.